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Controlled Drive for a Garage Door Panel or the like

Claims

1. System to control the motor drive of a garage door panel which is reciprocatingly movable and guided along a predetermined track between two end positions, and possibly one or more intermediate stop positions, said garage door panel including a switching device which indicates the assumption of the respective end position or stop positions, the output signals of these switching devices being usable to switch off the power supply to the drive motor, wherein the limit switches or reference point switches are actuatable through rotatable cams which simulate the garage door path,

characterized in

that both the rotating cams as well as the limit switches are combined to form a single constructional unit.

2. System according to Claim 1, characterized in that the position of the rotating cams is able to be adjusted through a rough adjustment as well as a fine adjustment.
3. Spindle drive according to Claim 1, characterized in that each individual rotating cam is composed of a cam wheel which is frictionally engaged to a disk which is in turn rotationally fixed to a driven spindle.
4. System according to Claim 3, characterized in that the rough adjustment is provided by a rough-adjustment wheel molded on to the cam wheel, said adjustment wheel projecting partially from the housing.
5. System according to one of Claims 2 through 4, characterized in that wheels to effect fine adjustment may be resiliently mounted in a comb-like spring connector strip suspended in the housing such that these wheels project at least partially from the housing, and that they are able to be rotated in response to pressure against the spring resistance of the spring connector strip and are able to be moved along with the corresponding cam wheel into the operational or frictionally engaged position to effect fine adjustment of the cam position.
6. System according to Claim 5, characterized in that one pair of wheels each is provided for the fine adjustment of one cam wheel.
7. System according to one of Claims 1 through 6, characterized in that multiple cam wheels may be provided in a side-by-side arrangement.
8. System according to one of Claims 1 through 7, characterized in that additionally an actuator for quick release is mounted in the housing.